Peabody, Daniel (EGLE)

From: Peabody, Daniel (EGLE)

Sent: Thursday, April 28, 2022 11:52 AM

To: saric.james@epa.gov

Cc: Miller, Megen (AG); Roberts, Keegan (robertsk@cdmsmith.com); Williams, Lisa; Diana,

Matthew (DNR); Wesley, Jay (DNR); Mills, Mark (DNR); Alexander, Kyle (EGLE);

Haroldson, Derek (EGLE); Riley, John (EGLE); Trumble, Luke (EGLE); Kline, David (EGLE);

Walczak, Joseph (EGLE)

Subject: EGLE Cover Letter and Detailed Comments_Kalamazoo River Superfund Site_OU5 Area 1

Remedial Reach RA_TCP, CFLP, FSP, and SSP

Attachments: FINAL_EGLE Cover Letter and Detailed Comments_OU5 Area 1 Remedial Reach

RA_SSP_TCP_CFLP_FSP.pdf

Jim,

Attached are EGLE's comments on the Round 2 submittals for subject work plans that were submitted to support the upcoming remedial action for the Remedial Reach. The Round 2 submittals included the Traffic Control Plan (TCP), the Construction Facilities Layout Plan (CFLP), the Field Sampling Plan (FSP), and the Site Security Plan (SSP). Comments on other RA WPs will be submitted under separate cover letters and generally grouped based on the week they were submitted.

As previously requested, I will follow-up this email with an electronic version of our comments for editing.

Thanks,

Daniel Peabody

Environmental Quality Analyst
Remediation and Redevelopment Division
Michigan Department of Environment, Great Lakes, and Energy
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Follow Us | Michigan.gov/EGLE

STATE OF MICHIGAN



DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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LANSING

April 28, 2022

VIA E-MAIL and U.S. MAIL

Jim Saric
Remedial Project Manager
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard (SR-6J)
Chicago, Illinois 60604-3511

Dear Jim Saric:

SUBJECT: Michigan Department of Environment, Great Lakes, and Energy (EGLE)

Comments on the Site Security Plan dated April 2022, the Construction Facilities Layout Plan, the Traffic Control Plan dated April 2022, and the Field Sampling Plan (FSP) – Remedial Reach dated April 8, 2022, Area 1 of Operable Unit 5 (OU5), Allied Paper Inc./Portage Creek/Kalamazoo

River Superfund Site (Site).

By way of this correspondence, EGLE formally submits this cover letter and detailed comments (attached) for inclusion in the Administrative Record for the Site

The draft subject documents that were submitted provide details to support implementation of the Area 1 remedial action (RA). Georgia-Pacific (GP) and International Paper are respondents (Respondents) to a Unilateral Administrative Order (UAO) (Docket No: V- W- 17-C-002) for remedial design and remedial action (RD/RA) for Area 1 of OU5. The UAO requires implementation of the Area 1 record of decision (ROD) (Appendix A) and the procedures and requirements for implementing the work, are outlined in the Statement of Work (SOW) (Appendix B) that is included as an attachment to the UAO. The selected sediment remedy in the Area 1 ROD requires, among other things, excavation of the Crown Vantage Side Channel (CVSC) and select sediment 'hot spots' in a portion of the river referred to as the remedial reach which begins in the city of Kalamazoo near Mayors Riverfront Park and extends approximately 3 river miles downstream to Parchment.

Following completion of the RD/RA pre-design investigation (PDI) as described in the PDI Evaluation Report Parts 1 & 2, the PDI sampling in 2017 'eliminated' KPT-20 as a 'hot spot' but the PDI sampling identified Verburg Park Pond as a 'hot spot'. At the 30 percent RD phase, the United States Environmental Protection Agency (U.S. EPA) approved a request from the Respondents to splinter the RD/RA for the sediment remedy into three individual components based on location. The RD and RA for the CVSC 'hot spot' was completed in 2020 and 2021, respectively.

The 95 percent Sediment Remedial Design (95RD) – Remedial Reach, which included design details for 'hot spots' KRT-4, KRT-5/FF-19 and SIM-1 was submitted in August 2021, followed by an Addendum that was submitted in October 2021 for Bedform 118 (SED118), which is an additional 'hot spot' located upstream of the Verburg Park Pond outlet that was identified during the RD/RA PDI and added to the scope of the RD/RA by the U.S. EPA during development of the 95RD – Remedial Reach. EGLE provided a cover letter and detailed comments on the 95RD – Remedial Reach and Addendum to the U.S. EPA on October 27, 2021. The Final Sediment Remedial Design (100RD) – Remedial Reach was submitted on December 17, 2021, and the U.S. EPA issued an approval of the 100RD and authorization to proceed with RA on February 9, 2022. The sediment RD for the furthest upstream 'hot spot' in the Remedial Reach, KPT- 19, is not part of this RD/RA. EGLE expects to receive a standalone RD for KPT-19 soon.

The subject documents were submitted per the requirements of Section 4 of the SOW and provide details for sediment 'hot spots' referred to as KRT-4, KRT-5/FF-19, Verburg Park Pond, SED118 and SIM-1, which are in the remedial reach. Similar to the RA work plans and documents that were submitted by the Respondents prior to implementing the RA at the CVSC, an expedited review and comment time is being requested so that the RA can begin at or around June 1, 2022. The four subject work plans were provided on April 8.

EGLE's comments were developed after reviewing the subject documents, presentation slides provided during work groups meetings that were held on March 29, April 11 and April 12, and following a site visit to the proposed staging areas that was held on April 7 and attended by the U.S. EPA and their consultant (Jacobs Engineering), EGLE, the Area 1 Respondents and their respective consultants (Wood Environment & Infrastructure Solutions [Wood], and GeoSyntec Consultants), and the contractor that was selected by the Respondents to implement the RA (Sevenson Environmental Services).

EGLE's comments on the subject documents are relatively minor, and mostly suggestive in tone and nature, the one exception being comments on the FSP. The FSP provides details on the confirmation sampling program that will be utilized to ensure that the RA and its objectives (i.e., 'hot spot' removal) are completed. Although the term 'hot spot' has not been clearly defined, the Area 1 sediment remedy for the remedial reach is 'hot spot' removal and a targeted post-construction surface area weighted average concentration was developed for the remedial reach and each Section of Area 1. For the Area 1 Remedial Reach RA, the Respondents developed the lateral boundaries of each "hot spot" following multiple rounds of RD/RA PDI sampling. The Respondents utilized a somewhat loose definition of a Thiessen polygon to then draw dredge management units (DMUs) of approximately equal size within each 'hot spot'. The lateral boundaries of each 'hot spot' included as part of this RD/RA are fixed, meaning no confirmation sampling or dredging/excavation will occur past the edges of each 'hot spot'.

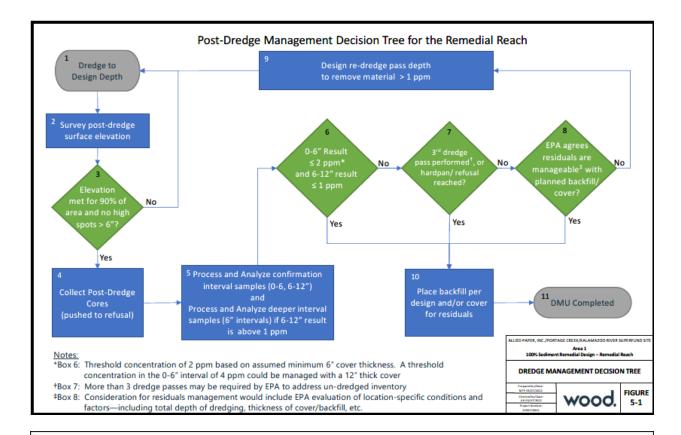
The FSP proposes collecting one aliquot from five subareas within each DMU and subareas range from 1,000 square feet (ft²) to over 4,000 ft². The FSP then proposes compositing the five aliquots for comparison to action levels established for this RD/RA, so DMUs range from 5,000 ft² to over 20,000 ft². However, the FSP also provides several examples of when confirmation sampling in a given subarea, or an entire DMU, would not be completed. The scenarios where confirmation aliquots would not be collected include the presence of high subgrade (stiff clay, dense gravel/cobble, or rock that prevents the Contractor from achieving the design dredge elevations) within the dredge confirmation cell; the inability to collect full 0 to 12-inch confirmation sediment core in one or more composite aliquot location; and, if there less than 80 percent recovery in one or more composite aliquot location. Text in the FSP also states that a minimum of three sample aliquots for each confirmation sample will be required, which suggests that in some instances a confirmation sample may not be collected at all (i.e., if less than three aliquots are collected).

Overall, the FSP falls short on describing how a simple random sampling strategy with a limited number of aliquots (i.e., five) over large DMUs (5,000 ft² to over 20,000 ft²) is sufficient to determine if the 'hot spot' has been removed. EGLE continues to have concern about the adequacy of the Area 1 RD/RA PDI in delineating the nature and extent of contamination and defining the depth to a clean surface. A standard confirmation sampling plan would consider the confidence in the design data and the objectives of the cleanup. The FSP does not provide data quality objectives, nor does it consider the adequacy of the data being used to develop dredge cuts and DMUs. Furthermore, the size of the DMUs is too large based on the cost estimates provided by the Respondents in the Area 1 Feasibility Study that were used in the Area 1 ROD which assumed one sample would be collected every 500 ft².

The FSP is also very rigid and lacks the flexibility necessary to adjust to conditions in the field while still providing the necessary assurance that the goal of the remedial action (i.e., removal of 'hot spots') has been achieved. Given the importance of the confirmation sampling program and limited number of aliquots being proposed over large DMUs, the level of effort outlined in the FSP is insufficient. The FSP must be edited to provided sufficient flexibility to adjust for localized conditions rather than simply abandon confirmation sample locations. The substrates that are identified as "high subgrade" are inappropriate when considering that the native riverbed is largely comprised of interbedded sands, silts and gravels, and the paper mill waste and PCB source material is mostly comprised of clay-sized particles that can be interbedded with or interspersed within coarser deposits, or present as large, thick, contiguous masses in quiescent or depositional areas. Cores must be advanced to refusal using a robust method that is sufficient to penetrate the soft sediment column and collect sediments that range from mostly fine-grained materials (i.e., silts and clays) to coarser materials, such as sands and gravels.

A more reasonable process under the current approach would be to complete sediment poling across the subareas and DMUs after dredging to approximate the remaining soft sediment thickness and adjust the proposed confirmation core locations, if necessary. Less than ideal sample recovery (i.e., less than 80 percent) may require an adjustment in field procedures and is not an adequate reason to abandon confirmation sampling, especially given the limited number of aliquots and large size of the subareas and DMUs. EGLE's preference would be to alter the proposed approach in the FSP to include completion of soft sediment poling prior to confirmation sampling, significantly increase the number of sample aliquots and/or scale the DMUs and subareas to an appropriate size and utilize a more robust sample strategy to ensure the objective of the remedial action has been achieved.

Text in the FSP is inconsistent with the Dredge Management Decision Tree that was agreed upon during the RD, and the Dredge Management Decision Tree is identified as a Figure in the FSP Table of Contents, but it was not included in the submittal. GP submitted the FSP on April 11, 2022 and held a follow-up meeting to discuss the FSP on April 12, 2022. During that follow-up meeting, EGLE informed the Respondents and their consultants of the inconsistencies between the text and the Dredge Management Flow Chart, and that the Dredge Management Decision Tree was not included in the submittal. In a follow-up email to the U.S. EPA and EGLE on April 15, 2022, the Respondents consultant proposed edits to the text. To eliminate any confusion, EGLE recommends simply removing any textual description of the decision-making process, inserting the correct version of the Post-Dredge Management Decision Tree for the Remedial Reach, and referencing the decision tree in applicable sections of the FSP. The Dredge Management Decision Tree and edits to the FSP proposed by the Respondents consultant are inserted below.



4.2 Sample Processing Procedures

After collection, sediment cores will be processed in general accordance with SOP F-5 (Wood 2021). Cores will be cut open, measured, photo-documented, and logged using the Unified Soil Classification System. Recovered sediment will be sectioned into 6-inch intervals (i.e., 0-to 6-inches and 6- to 12-inches). The material from the 0- to 6-inch interval from each of the five cores will be thoroughly homogenized individually following the USEPA quartering procedure (USEPA 2014). The homogenized material from the five cores will then be combined and homogenized to form a 5-point composite sample representing the 0- to 6-inch interval. Similarly, the material from the 6- to 12-inch interval of the five cores will be homogenized individually and then combined and homogenized to form a 5-point composite sample representing the 6- to 12-inch interval. Intervals deeper than 12 inches will be photodocumented, logged, and sectioned, but will not be immediately homogenized/analyzed. Deeper intervals will be stored on-site in accordance with SOP F-17 (Wood 2021) pending results of the top two intervals.

Samples from the top two intervals (0-6 inches and 6-12 inches) will be analyzed to determine the next action to be taken for the DMU, in accordance with the Post-Dredge Management Decisions Tree (Figure 5-1), as discussed in Section 5.0. If analytical results are above 1 part per million (ppm) total PCBs in the 6-12" interval, then subsequent intervals will then be

5.0 POST-DREDGE DECISION MANAGEMENT

As previously mentioned, results will be evaluated to determine the next action to be taken for the DMU. Figure 5-1 summarizes the USEPA-mandated decision management process for evaluating dredging completion in a DMU, including the threshold PCB concentrations in residuals stipulated by USEPA for 6-inch and 12-inch sand covers. Specifically, a 6-inch sand cover will be placed if the 0 to 6-inch result is less than or equal to 2 ppm and the 6 to 12-inch result is less than or equal to 1 ppm (Figure 5-1, Box 6). A 12-inch sand cover will be placed if the 0 to 6-inch result is greater than 2 ppm and less than or equal to 4 ppm and the 6 to 12-inch result is less than or equal to 1 ppm (Figure 5-1, Box 6 note). Alternatively, if post-dredge residuals exceed acceptable limits, additional dredging will be performed and another round of confirmation sampling will be collected and evaluated in accordance with Figure 5-1. In the event of exceptions to the expected case (i.e., Figure 5-1, Box 7 or 8), EPA will be consulted before backfilling.

Three scenarios have been identified as exceptions to the default approach to collecting verification samples: if a high subgrade (coarse sand and gravel) or hard bottom occurs within the dredge cell, if a full 0 to -12-inch confirmation core cannot be collected in one or more locations (e.g., if shallow refusal is encountered), or if percent recovery is not acceptable (i.e., less than 80%). In the case of these exceptions, Table 5-1 lists the steps to be taken to verify dredging completion through alternate confirmation methods.

As indicated in the FSP text and shown in the proposed edits that were inserted above, the Respondents do not intend on immediately processing the entire core, although the exact process for maintaining integrity of deeper sample intervals while sectioning the core and processing the shallow sample intervals is not described in the FSP. Given the Respondents reluctance to process and analyze the deeper sample intervals, EGLE requests that the photographic logs that are generated must capture the entirety of each core and be reviewed with the U.S. EPA and EGLE prior to discarding those materials. The approach in the FSP should be adjusted to accommodate review of photographic core logs and include the immediate analysis of deeper sample intervals if potential source materials are observed in any of the confirmation cores.

The FSP does not contemplate or provide an opportunity for EGLE or the U.S. EPA to collect split samples during confirmation sampling. By way of this letter, EGLE respectfully requests the opportunity to obtain split samples during implementation of the confirmation sample program at a frequency to be determined following consultation with the U.S. EPA and their approval of the FSP.

EGLE appreciates the opportunity to review and comment on the subject Work Plans for Area 1 and looks forward to working with all parties involved on this project. If you have any questions, please contact Mr. Daniel Peabody, Environmental Quality Analyst, Remediation and Redevelopment Division at 517-285-3924; PeabodyD@Michigan.gov; or EGLE, P.O, Box 30426, Lansing, Michigan 48909-7926.

Sincerely,

Daniel Peabody, Environmental Quality Analyst

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Superfund Section

Remediation and Redevelopment Division

Attachments

Megen Miller, Michigan Department of Attorney General att/cc:

Dr. Keegan Roberts, CDM Smith

Dr. Lisa Williams, US Fish and Wildlife Service

Matt Diana, MDNR Jay Wesley, MDNR Mark Mills, MDNR Kyle Alexander, EGLE Derek Haroldson, EGLE John Riley, EGLE Luke Trumble, EGLE

David Kline, EGLE

Joseph Walczak, EGLE

Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site Site Security Plan – Remedial Reach Kalamazoo River Area 1 April 2022

GENERAL COMMENTS

Commenting Organization: EGLE

General Comment #1: EGLE has voiced concern about site security during several work group meetings and during the site visit. EGLE believes that trespass, sabotage, theft, and general site security issues may arise, especially while work is ongoing at Verburg Park (RSA 1). The SSP does a good job proposing strategies to mitigate security issues, but some additional items should be considered:

- Workers will need to be diligent and should plan daily inspections of all equipment to ensure it is in good working order and has not been altered or sabotaged.
- The work area will need to be cleaned and buttoned-up each evening. All chemicals and equipment should be properly secured.
- The Respondents should consider extending the fence line at RSA 1 so that it ties in or closely abuts the neighboring fence to reduce the foot traffic close to the site.
- The Respondents and Contractor(s) should have a plan for trespassers that walk on to the site through the park, as well as recreators that come down the river and enter the dredging area.
- The Respondents should consider the use of security of field cameras, particularly near the offices where expensive and potentially sensitive equipment will be stored.
- The Respondents should consider requesting more frequent patrols from local or county police.
- The Respondents and Contractor(s) should consider how dredged material stored at the SPA could be secured to prevent exposure and/or relocation of materials in the SPA by trespassers.

Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site Construction Facilities Layout Plan – Remedial Reach Kalamazoo River Area 1 April 2022

GENERAL COMMENTS

Commenting Organization: EGLE

General Comment #1: EGLE has voiced concern about the proposed sediment processing area (SPA) in Verburg Park (RSA 1) and relatively low elevation of RSA 1 that make it subject to inundation under flood conditions (e.g., greater than a 20- or 25-year flood). While the proposed SPA in RSA 1 is not in the most ideal location, Verburg Park itself has very little high ground. However, the proposed storage location for the imported clean material that will be used for backfilling is at a slightly higher elevation and further upland than the SPA. The Respondents should consider relocating the SPA to an area of higher ground or they should develop a contingency plan that includes halting dredge operations and immediately removing and disposing of all materials in the SPA if flood conditions are predicted.

SPECIFIC COMMENTS

Commenting Organization: EGLE

Section: Figures Page #: R S A - 1 Lines #: N/a

Specific Comment #1: Add callouts to spill plates around the two loadout barges.

Commenting Organization: EGLE

Section: Figures Page #: R S A - 3 Lines #: N/a

Specific Comment #1: Clarify where and how loadout of contaminated will be conducted. The current diagram depicts a long reach excavator in the backfill area, but the loadout removal area is filled with mixing bins. Provide a plan for loadout operations that involve spill plates/aprons to protect sediments near the RSA.

Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site Traffic Control Plan – Remedial Reach Kalamazoo River Area 1 April 2022

GENERAL COMMENTS

Commenting Organization: EGLE

General Comment #1: The fence line for the entrance gate is located inside of the sidewalk, which leaves the sidewalk open to pedestrians but may also create a hazard for trucks. Coordination and outreach with the city of Kalamazoo should be completed to determine if closing the sidewalk is warranted, perhaps even only when truck traffic is high.

Commenting Organization: EGLE

General Comment #2: During the cleanup, the level of traffic associated with activities at the site will vary day to day and perhaps hour to hour. Given the location of the project area and the requirement for heavy trucks to drive through portions of the city prior to getting on the highway, it will be imperative that drivers follow rules of the roadway. EGLE recommends that the Respondents or the U.S. EPA consider periodically following truck drivers to ensure that drivers are following rules of the roadway, and also to confirm that waste materials are ultimately be transported and disposed of at the landfills.

Commenting Organization: EGLE

General Comment #3: The Respondents should consider placing "closed" signs over the existing signs located in the city of Kalamazoo for Verburg Park. This would allow the Respondents to clearly communicate that Verburg Park is closed and also utilize the existing infrastructure instead of installing new signage and posts. The Respondents should also consider requesting that the city of Kalamazoo put similar verbiage on their website(s).

Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site Area 1 Post-Dredge and Backfill Confirmation Field Sampling Plan Remedial Reach

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Kalamazoo River Area 1 April 8, 2022

GENERAL COMMENTS

Commenting Organization: EGLE

General Comment #1: Figure 5-1 is listed in the table of contents and referenced in Section 5, but the figure is not included in the field sampling plan. Revise the field sampling plan to include this figure after incorporating final agency comments provided by EPA and referenced in an email from C. Gerbig to the project team on April 15, 2022. Based on the limited information provided, it can appears that previous agency comments were not considered in the confirmation sampling approach discussed in this field sampling plan. To eliminate any confusion, EGLE recommends removing any textual description of the decision-making process, inserting the correct version of the *Post-Dredge Management Decision Tree for the Remedial Reach*, and simply referencing the decision tree in applicable sections of the FSP.

Commenting Organization: EGLE

General Comment #2: Since the time the Area 1 RD/RA PDI sampling was completed, a significant low bias in the Respondents total PCB analytical data was identified and since that time corrective actions have been implemented by the Respondents lab. Plots highlighting the low analytical bias in samples analyzed prior to and following laboratory corrective were submitted as part of EGLE's comments on the 95RD – Remedial Reach and Addendum. Although the corrective actions made to the Respondents laboratory Standard Operating Procedures (SOP) improved the accuracy of the data, it appears that the Respondents analytical data is still under reporting the total PCB concentration. Since the total PCB concentration of the material in confirmation samples will likely be higher than the measurement reported by the Respondents lab, EGLE will not support the use of alternate, higher criterion to close dredge management units (DMUs) without additional reasoning and documentation that justifies ceasing dredge operations.

SPECIFIC COMMENTS

Commenting Organization: EGLE

Section: 2.0 Page #: 2-1 Lines #:10

Specific Comment #1: Revise the text to include additional details regarding the post-dredge surveys, including the percentage of DMU area that must meet design dredge elevations.

Commenting Organization: EGLE

Section: 2.0 Page #: 2 - 1 Lines #: 13

Specific Comment #2: The text currently reads as follows: "After analytical results are received from the laboratory, the Respondents' Representative (Wood Environment and Infrastructure Solutions, Inc. [Wood]), in coordination with USEPA, will review and determine next steps." Next steps have already been determined per the final EPA-approved *Post-Dredge Management Decision Tree for the Remedial Reach*.

Revise the text to read as follows: "After analytical results are received from the laboratory, the

Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site Area 1 Post-Dredge and Backfill Confirmation Field Sampling Plan Remedial Reach

Kalamazoo River Area 1 April 8, 2022

Respondents' Representative (Wood Environment and Infrastructure Solutions, Inc. [Wood]), in coordination with USEPA, will follow the process identified in the Post-Dredge Management Decision Tree for the Remedial Reach."

Commenting Organization: EGLE

Section: 2.0 Page #: 2-1 Lines #:15

Specific Comment #3: The text currently reads as follows: "If confirmation sample results indicate that removal of targeted sediments has been completed, the DMU will be considered "cleared" and Wood will direct the remedial contractor to proceed with placement of the backfill in that DMU." The *Post-Dredge Management Decision Tree for the Remedial Reach* is structured to achieve certain concentrations within the sediment bed. The current phrasing of the text could be mistakenly construed to mean that only those sediments "targeted" in design dredge prisms are of decision-making consequence when considering completion.

Revise the text as follows to prevent any confusion: "If confirmation sample results and the Post-Dredge Management Decision Tree for the Remedial Reach indicate that removal of targeted sediments has been completed, the DMU will be considered "cleared" and Wood will direct the remedial contractor to proceed with placement of the backfill in that DMU."

Commenting Organization: EGLE

Section: 2.0 Page #: 2 - 1 Lines #: 17-20

Specific Comment #4: As commented on the 100 percent design, EGLE is concerned that situations may arise during residual dredging phases that may mobilize contaminated sediment on to clean backfill if dredging is still occurring upstream of areas that are completed, and backfilling is planned as discussed in this section. EGLE understands that a situation like this is highly likely due to the limited confirmation sampling approach which only releases surficial intervals rather than fully characterizing cores for residual dredging. Revise this section when discussing backfill to state that "Backfill will be placed in each DMU once post-dredging verification is complete in all upstream DMUs."

Commenting Organization: EGLE

Section: 2.0 Page #: 2-1 Lines #:18

Specific Comment #5: The text currently reads as follows: "If confirmation sample results indicate that targeted sediments within a DMU have not been removed, additional dredging and sampling may be required as discussed in Section 5.0." The process for determining if additional dredging and sampling may be required has already been determined in the *Post-Dredge Management Decision Tree for the Remedial Reach*.

Revise the text to read as follows: "If confirmation sample results and the and the Post-Dredge Management Decision Tree for the Remedial Reach indicate that targeted sediments within a DMU have not been removed, additional dredging and sampling will be determined via the Post-Dredge Management Decision Tree for the Remedial Reach."

Commenting Organization: EGLE

Section: 2.0 Page #: 2 - 1 Lines #: 21-26

Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site Area 1 Post-Dredge and Backfill Confirmation Field Sampling Plan

Remedial Reach

Kalamazoo River Area 1 April 8, 2022

Specific Comment #6: As noted in EPA's February 18, 2021 comments on the dredge management decision tree, confirmation sample intervals should be 0- to 3-inch, 3- to 12-inch, and 6-inch intervals thereafter. Revise Section 2.0 text accordingly.

Commenting Organization: EGLE

Section: 2.0 Page #: 2 - 1 Lines #: 32

Specific Comment #7: The text currently reads as follows: "Confirmation sampling of sub-areas will be modified to exclude areas of high subgrade (stiff clay, dense gravel/cobble, or rock that prevents the Contractor from achieving the design dredge elevations), if identified during dredging, or offset (e.g., where there is a utility/structural offset), and the five-point composite sample will be collected representing the remainder of the DMU." Based on extensive site experience, "stiff clays" may well contain elevated PCB concentrations and warrant removal. As such, these materials should not be excluded from confirmation sampling.

Revise the text to read as follows: "Confirmation sampling of sub-areas will be modified to exclude areas of high subgrade (dense gravel/cobble or rock that prevents the Contractor from achieving the design dredge elevations and as determined in consultation with EPA), if identified during dredging, or offset (e.g., where there is a utility/structural offset), and the five-point composite sample will be collected representing the remainder of the DMU."

Commenting Organization: EGLE

Section: 3.0 Page #: 3 - 1 Lines #: 13-17

Specific Comment #8: Clarify how excel will be used to randomly generate one of the options? will excel functions like "RANDBEWTEEN" be used or will a person just select one from the screen?

Commenting Organization: EGLE

Section: 3.0 Page #: 3 - 1 Lines #: 21-26

Specific Comment #9: The DMU divisions for confirmation sampling should be presented to EGLE and EPA prior collection of confirmation samples so that a review of any manual adjustments for equal area approaches can be approved. Additionally, Figures 2-1 and 2-2 should be revised to show confirmation sample core locations for KRT-5/FF-19 as indicated by the text. Revise the figures as needed to resolve this inconsistency.

Commenting Organization: EGLE

Section: 3.0 Page #: 3 - 1 Lines #: General

Specific Comment #10: Revise the text to note that any alternative manual methods or other means of revising, adding, or deleting confirmation sample locations should be reviewed and approved by EPA prior to implementation.

Commenting Organization: EGLE

Section: 4.1 Page #: 4-1 Lines #: 3-7

Specific Comment #11: This section must include acceptance criteria for advanced cores, for example: Overlying water is present, and the surface is intact; Core tube is in good condition (not excessively bent); Core appears representative of surrounding area. Furthermore, the plan should note that cores should be maintained in a vertical orientation until processing.

Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site Area 1 Post-Dredge and Backfill Confirmation Field Sampling Plan Remedial Reach

Kalamazoo River Area 1 April 8, 2022

Commenting Organization: EGLE

Section: 4.2 Page #: 4 - 1 Lines #: 10-13

Specific Comment #12: Clarify how deeper intervals will be stored if they will not be immediately homogenized? EGLE request that deeper intervals should be processed/homogenized and stored frozen on site or at the analyzing laboratory.

Commenting Organization: EGLE

Section: 4.2 Page #: 4 - 1 Lines #: 14-15

Specific Comment #13: Revise the text to clarify what threshold concentration will be used to evaluate the top sample interval against. This threshold, denoted as X ppm in previous versions of the decision tree, needs to be established to represent acceptable residual concentration. Reference should be made to the Post-Dredge Management Decision Tree for the Remedial Reach.

Commenting Organization: EGLE

Section: 4.2 Page #: 4 - 1 Lines #: 14-15

Specific Comment #14: The text currently reads as follows: "Although the five cores will be advanced to refusal, the depth of recovered sediment in each core is expected to vary. Confirmation samples will require a minimum of three cores for compositing. For example, if two of the five cores collected from a DMU recover 3 feet of sediment but three cores recover only 2.5 feet of sediment, the material deeper than 2.5 feet will be discarded." Discarding core intervals that are deeper than others ignores the fact the refusal depth may vary within a particular DMU area and is not along a consistent horizontal plane. Under such a scenario, contaminated inventory could remain in these areas of thicker soft sediment within a DMU simply because the refusal depth varied between confirmation cores. Remove text discarding these core depth intervals as they could provide valuable information for decision making.

Commenting Organization: EGLE

Section: 5.0 Page #: 5 - 1 Lines #: 2-3

Specific Comment #15: Figure 5-1 is missing from the field sampling plan. Revise the plan to include the Post-Dredge Management Decision Tree for the Remedial Reach referenced in an email from C. Gerbig to the project team on April 15, 2022.

Commenting Organization: EGLE

Section: 5.0 Page #: 5 - 1 Lines #:4

Specific Comment #16: Revise the text to include the threshold PCB concentrations in residuals stipulated by USEPA for 6-inch and 12-inch sand covers as presented in the Post-Dredge Management Decision Tree for the Remedial Reach.

Commenting Organization: EGLE

Section: Table 5-1 Page #: Table 5-1

Lines #: N/A

Specific Comment #17: EGLE disagrees with the approach that states if "Exclude aliquot(s) from composite sample if high subgrade or hard bottom make up greater than 20% of the area. The other 80% of the area should be sampled and random points can be generated until a suitable location is

Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site Area 1 Post-Dredge and Backfill Confirmation Field Sampling Plan Remedial Reach Kalamazoo River Area 1 April 8, 2022

provided. Any revised confirmation sampling locations should be approved by EPA prior to implementation.